

Notice of Allowability

Application No.

09/812,411

Examiner

Albert Wang

Applicant(s)

THERIEN ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 18 August 2005.
2. ☒ The allowed claim(s) is/are 1-3,5,9-11 and 14-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20050930.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 August 2005 has been entered.

2. Pursuant to MPEP 606.01, the title has been changed to read:

**-- POWER MANAGEMENT SYSTEM THAT CHANGES PROCESSOR LEVEL
IF PROCESSOR UTILIZATION CROSSES THRESHOLD OVER A PERIOD THAT IS
DIFFERENT FOR SWITCHING UP OR DOWN --**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview and email correspondence with Aslam Jaffery (Reg. No. 51,841) and Charles Gray on 28 September 2005.

The application has been amended as follows:

1. (Currently Amended) A method comprising:
monitoring, by a power management system (PMS) included in a processor, processor
utilization of a computer system having the processor coupled to a power supply

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- circuit, and a power supply coupled to the power supply circuit, the processor having a plurality of performance levels;
- automatically transitioning the processor to a higher performance level if it is determined that the processor utilization has remained above a switch-up level for a first specified time; and
- automatically transitioning the processor to a next lower performance level, if any, if it is determined that the processor utilization has remained below a switch-down level for a second specified time, wherein the transitioning of the processor is initiated via a signal that an input/output (I/O) controller, in response to an external signal, transmits to the power supply circuit.
2. (Original) The method of claim 1, wherein the number of performance levels is two.
 3. (Original) The method of claim 1, wherein the switch-up level is approximately 95% of a current processor performance level.
 4. (Canceled)
 5. (Previously Presented) The method of claim 1, wherein the switch-down level is approximately 95% of the next lower processor performance level.
 - 6 – 8 (Canceled)
 9. (Currently Amended) A machine-readable medium having stored thereon data representing sets of instructions which, when executed by a machine, cause the machine to:

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monitor, by a power management system (PMS) included in a processor, processor utilization of a computer system having the processor coupled to a power supply circuit and a power supply coupled to the power supply circuit, the processor having a plurality of performance levels;

automatically transition the processor to a higher performance level if it is determined that the processor utilization has remained above a switch-up level for a first specified time; and

automatically transition the processor to a next lower performance level, if any, if it is determined that the processor utilization has remained below a switch-down level for a second specified time, wherein the transitioning of the processor is initiated via a signal that an input/output (I/O) controller, in response to an external signal, transmits to the power supply circuit.

10. (Original) The machine-readable medium of claim 9, wherein the number of performance levels is two.
11. (Original) The machine-readable medium of claim 9, wherein the switch-up level is approximately 95% of a current processor performance level.
- 12 –13 (Canceled)
14. (Previously Presented) The machine-readable medium of claim 9, wherein the switch-down level is approximately 95% of the next lower processor performance level.
15. (Previously Presented) The machine-readable medium of claim 9, wherein the first specified time that the processor utilization has remained above a switch-up level to

- transition the processor to a higher performance level is greater than a processor-utilization monitoring period.
16. (Previously Presented) The machine-readable medium of claim 15, wherein the specified period of time that the processor utilization has remained below a switch-down level to transition the processor to a next lower performance level is equal to the processor-utilization monitoring period.
 17. (Previously Presented) The method of claim 1 wherein the first specified time is greater than the second specified time.
 18. (Previously Presented) The method of claim 1 wherein the second specified time is greater than the first specified time.
 19. (Previously Presented) The machine-readable medium of claim 9 wherein the first specified time is greater than the second specified time.
 20. (Previously Presented) The machine-readable medium of claim 9 wherein the second specified time is greater than the first specified time.
 21. (Currently Amended) A system comprising:
a processor including a power management system (PMS) to
monitor processor utilization, wherein the processor has a plurality of
performance levels,
automatically transition the processor to a higher performance level if it is
determined that the processor utilization has remained above a switch-up
level for a first specified time, and

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automatically transition the processor to a next lower performance level, if any, if it is determined that the processor utilization has remained below a switch-down level for a second specified time;

a power supply circuit coupled to the processor;

the power supply circuit coupled to a power supply; and

an input/output (I/O) controller coupled to the power supply circuit, the I/O controller, in response to an external signal, to transmit a signal to the power supply circuit to initiate the transitioning of the processor.

22. (Previously Presented) The system of claim 21, wherein the switch-up level is approximately 95% of a current processor performance level.
23. (Previously Presented) The system of claim 21, wherein the switch-down level is approximately 95% of the next lower processor performance level.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 571-272-3669. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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